

PATENT

Atty. Docket No. TJK/432

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently amended) An instrumented prosthetic foot for use with an actuated leg prosthesis controlled by a controller, the instrumented prosthetic foot comprising:

An elongated body having a top and a bottom part;

a connector to connect the instrumented prosthetic foot to the leg prosthesis, ~~the connector being attached to the top part of the elongated body; and~~

~~a ground-engaging member attached to the bottom part of the elongated body;~~

~~at least one sensor for detecting positioned between the connector and the top part of the elongated body; the~~
~~at least one sensor transmitting signals indicative of changes in weight distribution along the foot to the~~
~~controller; [and]~~

~~an interface for transmitting signals from the sensor to the controller;~~

~~wherein in operation the at least one sensor is the only element interposed between the connector and the top part of the elongated body.~~

Claim 2. (Currently amended) An instrumented prosthetic foot according to claim 1, wherein:

~~the ground-engaging member~~ bottom part of the elongated body includes a pair of basic underfoot locations, the first region corresponding to the heel area of the human foot and second region corresponding to the toe area of the human foot.

Claim 3. (Currently amended) An instrumented prosthetic foot according to claim 2, wherein:

at least two sensors are provided, one of the sensors being associated with each basic underfoot locations of ~~the ground-engaging member~~ elongated body.

Claim 4. (Not elected)

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Claim 5. (Not elected)

Claim 6. (Currently amended) An instrumented prosthetic foot according to claim 3, wherein:

the sensors ~~include a load cell to measure the pressure applied at the~~ associated with each basic underfoot locations of the ~~ground-engaging member~~ elongated body are load cells.

Claim 7. (Not elected)

Claim 8. (Not elected)

Claim 9. (Canceled)

Claim 10. (Not elected)

Claim 11. (Not elected)

Claim 12. (Not elected)

Claim 13. (Not elected)

Claim 14. (Not elected)

Claim 15. (Not elected)

Claim 16. (Currently amended) An instrumented prosthetic foot according to claim 1, wherein:

the ~~interface for transmitting~~ at least one sensor transmits signals ~~from the sensor to the controller [is]~~ using a wired connection.

Claim 17. (Currently amended) An instrumented prosthetic foot according to claim 1, wherein:

the ~~interface for transmitting~~ at least one sensor transmits signals ~~from the sensor to the controller [is]~~ using a wireless connection.

Claim 18. (Original) An instrumented prosthetic foot according to claim 1, wherein:

the connector removably connects the instrumented prosthetic foot to the leg prosthesis.

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Claim 19. (New) An instrumented prosthetic foot according to claim 3, wherein:

the first and second sensors are positioned side by side, the first sensor being generally biased towards the heel region of the elongated body and the second sensor being generally biased towards the toe region of the elongated body.

Claim 20. (New) An instrumented prosthetic foot according to claim 1, wherein:

the at least one sensor transmits signals to the controller using an optical interface.

Claim 21. (New) An instrumented prosthetic foot according to claim 1, wherein:

the at least one sensor includes a load cell.

Claim 22. (New) An instrumented prosthetic foot according to claim 1, wherein:

the at least one sensor includes a strain gauge.

Claim 23. (New) An instrumented prosthetic foot according to claim 1, wherein:

the at least one sensor includes a pressure sensor.

Claim 24. (New) An instrumented prosthetic foot according to claim 1, wherein:

the at least one sensor includes a force sensing resistor.